

20821

S/048/61/025/003/009/047  
B104/B201

Comprehensive study of ...

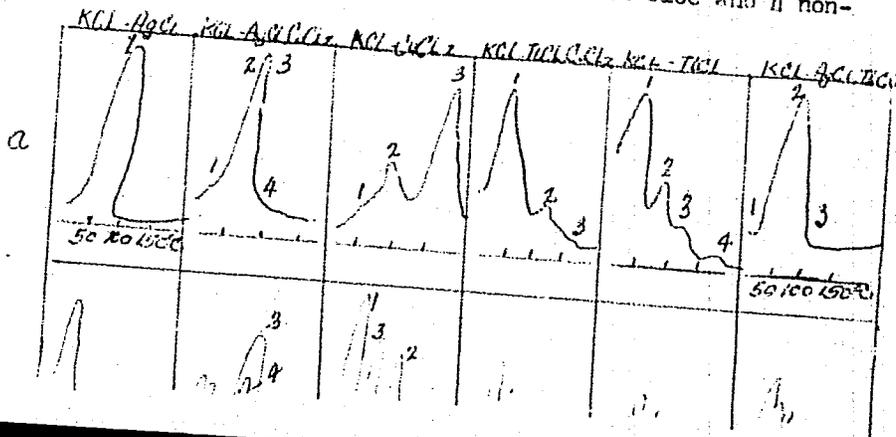
Tl<sup>+</sup>- ions upon the phosphorescence of Cu<sup>++</sup> could be established in two phosphors, KCl-CuCl<sub>2</sub>, AgCl and KCl-CuCl<sub>2</sub>, TlCl. The thermal peaks at low temperatures coincide in some of the phosphors (KCl-Ag; KCl-Ag, Cu; KCl-Ag, Tl, and others); not so the thermal peaks at higher temperatures. The strongest deviation is observed with KCl and NaCl phosphors. The thermal de-excitation peaks, fluorescence peaks, and phosphorescence peaks of all of the crystal phosphors examined by the authors had spectral bands corresponding to the activator ions introduced into the cationic sites of the KCl- or NaCl lattices. This proves the recombination mechanism of the afterglow. Furthermore, two weak bands of Ag were found in the regions of 440 and 550 m, which do not change on a passage from low-temperature to high-temperature peaks and which are ascribed to an association of Ag<sup>+</sup>-ions with lattice defects. The authors were further able to prove that Mn<sup>++</sup>-, Pb<sup>++</sup>-, and Sb<sup>++</sup>-ions fluoresce in the NaCl lattice, which fact does not fit the opinion prevailing in the literature. It is further noted that an intensive, sensitized luminescence of Cu<sup>++</sup>-, Tl<sup>+</sup>-, and Pb<sup>++</sup>-ions can be observed in KCl and NaCl phosphors activated by two elements (Ag+Cu, Ag+Tl, Tl+Pb, etc), on an excitation in the region of the Ag absorption band with

Card 2/3

Comprehensive study of ...

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S/O: 8/61/025/003/009/017  
R101/B201

$\lambda_{max} = 230 m\mu$ . This luminescence cannot be observed on the activation with an element. This sensitized luminescence has been already earlier observed on other phosphors (NaCl-Cu,Mn; NaCl-Pb,Mn; and KCl-Pb,Mn), and the authors have now proved that the concentration of the activators must amount to at least 0.01 mole% to make it possible to obtain a sensitized luminescence. In the authors' opinion, the sensitized luminescence is essentially caused by resonance energy transfer between the activators. There are 2 figures, 1 table, and 5 references: 1 Soviet-bloc and 4 non-Soviet-bloc.



Card 3/3

L 16864-63 EWT(1)/EWT(m)/EWP(q)/BDS/EEC(b)-2 AFPTC/ASD/ESD-3 P1-4 JJ

ACCESSION NR: AR3006310

S/0058/63/000/007/D082/D082

SOURCE: RZh. Fizika, Abs. 7D597

AUTHOR: Khalilov, A. Kh.; Salayev, E. Yu.; Mamedov, A. P.; Aliyev, T. D.; Isayev, F. K.

74  
73

TITLE: Investigation of the influence of microdefects on the spectral properties of luminescence centers in some KCl and NaCl phosphors

CITED SOURCE: Sb. Fiz. shchelochnogaloidn. kristallov. Riga, 1962, 168-171. Diskus., 171

TOPIC TAGS: phosphor, alkali-halide crystal, luminescence center, spectral property, microdefect

TRANSLATION: A study was made of the influence of non-activating impurities of Ba, Sr, Ca, Cd, Mg, and Co on the spectra of excited

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ACCESSION NR: AR3006310

absorption, excitation of individual glow bands, and the spectral composition of fluorescence, phosphorescence, optical flashes, and thermal glow of single crystals of NaCl and KCl, activated with ions of Ag, Cu, Tl, Pb, and Sn, and single crystals KCl-KBr, KCl-KI, and KBr-KI, activated with silver and copper ions, as well as the influence of the quenching and annealing of the foregoing spectral properties of phosphors. A different ratio of the band intensities was observed in KCl-Tl, and also a difference in the positions of their maxima in the spectra of fluorescence, phosphorescence, and thermal glow; this evidences that the centers responsible for these processes are not identical. The investigated non-activating impurities influence the ratio of the intensities of the excitation bands and the position of the maximum of the log-wave bands in KCl-Tl at small concentrations of Tl, and the influence manifests itself in various fashions. On the basis of the study of the influence of annealing and quenching on the spectral characteristics of KCl-Tl, it is concluded that the bands at 385 and 510  $m\mu$  are due to the glow centers.

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ACCESSION NR: AR3006310

of the second kind, connected with different combinations of Tl ions with the ion vacancies and impurity atoms. Analogous results were obtained for the NaCl-Tl phosphor. Using as an example mixed phosphors activated with silver, it is shown that the microdefects influence the energy levels of the activator ion. V. Kosikhin.

DATE ACQ: 15Aug63

SUB CODE: PH

ENCL: 00

Copd 3/3

KHALILOV, A.Kh.; ISAYEV, F.K.

Effect of anions of the bases on the trapping centers in certain  
alkali halide crystal phosphors with a mixed base. Izv. AN  
Azerb. SSR. Ser. fiz.-mat. i tekhn. nauk no.4:135-145 '63.  
(MIRA 16:12)

GROZOVSKIY, T.S.; DONSKOY, D.I.; KAGAN, D.Kh.; ISAYEV, F.P., inzhener, redaktor; EYFEL', A.I., inzhener, redaktor katalogov i plakatov; MATVEYEVA, Ye.N., tekhnicheskij redaktor; MODEL', B.I., tekhnicheskij redaktor.

[Repairable and spare parts for the ZIS-150 automobile; album of design] Remontiruemye i dopolnitel'no-remontnye detali avtomobilia ZIS-150; al'bom chertezhei. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1951. 137 p. (MLRA 8:1)  
(Automobiles--Apparatus and supplies)

ISAYEV, G.A.; FROLOV, V.Kh.

Estimation of the random errors of observation in direct current electric prospecting. Geol. i geofiz. no. 6:108-111 '65.

(MIRA 18:8)

1. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki i mineral'nogo syr'ya, Novosibirsk.

ISAYEV, G. B.

Isayev, G. B. - "Increasing the Meat Productivity of Cattle from the Lesser Caucasus and of Its Mixtures with Swiss Cattle in the Azerbaydzhan SSR." Min Higher Education USSR. Azerbaydzhan Agricultural Inst. Chair of Specific Animal Husbandry. Kirovabad, 1956 (Dissertation for the Degree of Candidate in Agricultural Sciences).

So: Knizhnaya Letopis', No. 10, 1956, pp 116-127

ISAYEV, G.

USSR/Farm Animals - Cattle.

Q-3

Abs Jour : Ref Zhur - Biol., No 1, 1958, 2577

Author : G. Isayev

Inst : -

Title : Fattening of Large Horned Cattle by the Utilization of Waste Materials of the Food Industry.

Orig Pub : Molochn. i myasnoye zhitovnovodstvo, 1957, No 5, 32-33

Abstract : Indigenous breeds of Malokavkazskyy cattle, cross bred in some cases with Swiss cattle were fattened on rations containing: 12 kilograms of cotton hulls, 1.8 kilograms of cotton cake, and 40 grams of salt daily per head. After 88-95 days the animals fed on these rations showed a daily gain in weight: indigenous animals 640-770 grams per head, and hybrids 754-788 grams per head. Seventy percent of the cattle showed a degree of fattness, sometimes above the average. Net profits of 637 rubles and 58 kopeks were obtained per head.

Card 1/1

USSR / Farm Animals. Cattle.

2-2

Abs Jour: Ref Zhur-Biol., No 12, 1958, 54770.

Author : ~~Isayev, G.~~ Agayev, A.

Inst : Not given.

Title : Experience in the Fattening of Culled Cattle on  
Corn.

Orig Pub: Azerbaydzhan sosyalist kend teserrufaty, 1957,  
No 8, 38-40; Sots. s. kh. Azerbaydzhana, 1957,  
No 8, 36-37.

Abstract: In the fattening of culled cattle on rations  
identical as to nutritiousness but different as  
to composition, the weight gains in cows fed  
rations comprising corn silage and corncobs for  
59 days, were 20 kg. higher, and in heifers 39.2  
kg. higher, than in the control group in which

Card 1/2

32

ISAYEV, G.G., inzh.; LASHUTIN, A.G., inzh.

Potentials for lowering capital investments in piping between shops.  
Prom. stroi. 40 no.2:8-11 '62. (MIRA 15:7)

1. Longiprogas.  
(Petroleum refineries) (Pipe)

VEZIROVA, R.Kh.; GADZHI-KASUMOV, A.S.; ISAYEV, G.I.

Regularities in the variation of the specific weights of petroleum in the horizons of the Kirmaki series in the Buzovny-Mashtagi oil field. Izv. vys. ucheb. zav.; neft' i gaz 8 no.2:19-21 '65. (MIRA 18:3)

1. Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova.

KHARITONOV, M.F.; ISAYEV, G.I.

Concerning the temperature regime of the Buzovny-Mashtagi  
oil field. Izv. vys. ucheb. zav.; neft' i gaz 7 no.11:3-7  
'64. (MIRA 18:11)

1. Azerbaydshanskiy institut nefti i khimii im. M. Azisbekova.

ISAYEV, G.I.

26004 Isayev, G.I. Fizicheskoye Razvitiye Doshkol'nikov G. Apna-Ata V Gody Velloy Otechestvennoy Voyny. Zdravookhraneniye Kazakhstana, 1948, No.4, S. 33-37.

SO: Letopis' Zhurnal Statey, No. 30, Moscow 1948

ISAYEV, G. P.

Isayev, G. P. "On the maximal length of retention time of a medical thermometer in measuring the body temperature of preschool children," Zdravookhraneniye Kazakhstana, 1949, No. 1, p. 27-29, - Bibliog: p. 29.

SO: U-3736, 21 May 53, (Letopis 'Zhurnal 'nykh Statey, No. 17, 1949).

ISAYEV, G.P.

[Systematic observation of the physical development of pupils in kindergartens] O sistematicheskom nabliydenii na fizicheskim razvitiem vospetannikov detskikh sadov. Alma-Ata, 1954. 25 p.  
(MIRA 10:5)

(PHYSICAL EDUCATION FOR CHILDREN)

ISAYEV, G.P.

I.V. Buial'skii's "Anatomical and surgical tables"; an original work of medical literature of the 19th century. Arkh. anat. gist. 1 embr. 32 no.2:59-60 Ap-Je '55. (MLRA 9:1)

1. Iz Kazakhskogo gosudarstvennogo meditsinskogo instituta imeni V.M. Molotova (dir. dotsent S.R. Karynbayev)

(ANATOMY, history.

in Russia, contribution of I.V. Buial'skii)

(BIOGRAPHIES,

Buial'skii, I.V.)

*Isayev, G. P.*

USSR/General Division - History. Classics. Personalities.

A-2

Abs Jour : Ref Zhur - Biologiya, No 1, 1957, 27.

Author : G.P. Isayev

Inst :

Title : ~~Anatomical-Surgical Tables by I.V. Buyal'skiy, an Original Work of Medical Literature at the Beginning of the 19th Century.~~

Orig Pub : Arkhiv anatii, gistol. i embriologii, 1955, 32, No 2, 59-60

Abstract : The work by Il'ya Vasil'yevich Buyal'skiy (1789-1866) "Anatomical-Surgical Tables Explaining the Performance of Operations of Binding Large Arteries" (1828) is a summation of the theoretical and practical knowledge of that period in the area of anatomy and surgery. The monograph consists of two parts; a text (in Russian and Latin languages, 36 pp) and tables (36 illustrations on 14 tables). A brief anatomical description of the

Card 1/2

ISAYEV, G.P.

Kazakhstan Society of Medical and Public Health History. Sov.vdrazv.  
17 no.7864 J1 '58 (MIRA 1188)  
(KAZAKHSTAN--MEDICAL SOCIETIES)

ISAYEV, G. P.

"Effect of certain environmental factors on the physical development  
of children of preschool age."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists  
and Infectionists, 1959.

USSR/ Agriculture - Stockraising

Card 1/1 Pub. 86 - 20/38

Authors : Verdiyev, Z. K., and Isaeyev, G. V., Cand. Agri. Sc.

Title : Experiment in the crossing of the Azerbaijanian zebu with Schwyz stock

Periodical : Priroda 44/7, 103 - 103, Jul 1955

Abstract : An account is given of zebu cattle in Azerbaijan becoming degenerated because of lack of good fodder and backward methods of breeding. Experiments are described which resulted in the improvement of the stock. They consisted mainly of the introduction of bulls from the Canton of Schwyz in Switzerland. Figures are given of the improvement in weight and milk production. One USSR reference (1954). Illustrations.

Institution : .....

Submitted : .....

Исаяев, Г. В.

86-12-15/29

**AUTHOR:** Isayev, G.V., Lt Col

**TITLE:** One Hundred and Sixty Practical Suggestions by Officer Bondarenko (160 ratsionalizatorskikh predlozheniy ofitsera Bondarenko)

**PERIODICAL:** Vestnik Vozdushnogo Flota, 1957, Nr 12, pp. 60 - 61 (USSR)

**ABSTRACT:** The author says that Lt Col G.Ye. Bondarenko is known in an aviation school as a tireless innovator. During his work in the author's unit he made about 160 suggestions. He has created a large number of various mockups, the use of which helps to improve the training of students in air navigation. As examples, three following mockups are mentioned by the author: a mockup for determining the radio-navigational elements with the aid of ARK-5 radio compass; another mockup gives a clear picture how to use ARP-4 radio direction finder in air navigation; a third mockup indicates the route correction

Card 1/2

ISAYEV, I., starshiy leytenant.

Practical training of radio technicians. Voen. sviaz, 16 no. 6:13  
Je '58. (MIRA 11:?)

(Radio, Military)

SHLYAKHTO, P., kandidat tekhnicheskikh nauk; ISAYEV, I., kandidat tekhnicheskikh nauk; GORCHAKOV, Ye., inzhener.

Resistance to movement of the VL22<sup>m</sup> electric locomotive equipped with roller axle boxes. Tekh.zhel.dor. 15 no.1:20-22 Ja-F '56.

(MLRA 9:5)

(Electric locomotives)

COUNTRY : BULGARIA *Isayev, I.* H17  
Category : Chemical Technology. Pharmaceuticals. Vitamins.  
Antibiotics  
Abs. Jour : Ref Zhur-Khimiya, No 14, 1959, No 50680  
Author : Isayev, I.  
Institute : -  
Title : Derivation of Preparations Made of Jen-Shen  
Orig Pub. : Farmatsia (Bulg.), 1958, 8, No 2, 26-27  
Abstract : Solid and liquid preparations were made of preserved and fresh Chinese roots. The liquid preparation was made by extraction of ground and sifted roots with 40-70% alcohol. From the preserved roots of Jen-Shen a comfit was made. To pre-treated roots a filler mixture was added, followed by granulation and by forming tablets. The obtained tablets were analyzed for certain properties. Clinical and pharmacological investigations revealed that prepara-  
Card: 1/2  
H-77

ISAYEV, I.

The section is the foundation of a primary organization.

NTO 5 no.7:50-51 JI '63.

(MIRA 16:8)

1. Predsedatel' byuro sekcii kholodnogo prokata i volocheniya  
trub soveta nauchno-tekhnicheskogo obshchestva Nikopol'skogo  
Yuzhnotrubnogo zavoda.

(Nikopol'—Pipe mills)

ISAYEV, I. A.

Isayev, I. A. — "Determination of the Coefficients of Hydraulic Resistance of Oil Pipelines." Min Higher Education USSR, Moscow Order of Labor Red Banner Petroleum Inst imeni Academician I. M. Gubkin, Chair of Transport and Storage of Petroleum, Moscow, 1955 (Dissertation for Degree of Candidate of Technical Sciences).

SO: Knizhnaya Letopis', No. 23, Moscow, June, 1955, pp. 87-104.

ISAYEV, I.A.

Experimental determination of hydraulic resistance factors in straight petroleum pipelines and in fittings. Trudy MNI no.17:112-168 '56.

(MIRA 9:10)

(Petroleum--Pipelines) (Hydrodynamics)

YABLONSKIY, Vsevolod Sergeyevich; ISAYEV, Ivan Anan'yevich;  
RABINOVICH, Ye.Z., red.; KRYUCHKOVA, V.N., tekhn. red.

[Collection of problems and exercises in applied hydro-  
mechanics] Sbornik zadach i uprazhnenii po tekhnicheskoi  
gidromekhanike. Moskva, Fizmatgiz, 1963. 200 p.  
(MIRA 16:10)

(Fluid mechanics--Problems, exercises, etc.)

SISAKYAN, Norayr Martirosovich, akademik; SEVERIN, Sergey Yevgen'yevich; PARIN, Vasilii Vasil'yevich; EL'PINER, Isaak Yefimovich, doktor biol. nauk; KUZIN, Aleksandr Mikhaylovich; ISAYEV, I.B., SOROKO, Ya.I., red.

[Biology and its allies] Biologiya i ee soizuzniki; sbornik. Moskva, Izd-vo "Znanie," 1964. 77 p. (Novoe v zhizni, nauke, tekhnike. VIII Seriya: Biologiya i meditsina, nos.17-18) (MIRA, 17:10)

1. Deystvitel'nyy chlen AMN SSSR (for Severin, Parin). 2. Chlen-korrespondent AN SSSR (for Kuzin).

IMANOV, L.M.; KADZHAR, Ch.O.; ISAYEV, I.D.

Microwave rotation spectrum of  $\text{CH}_3\text{CH}_2\text{OH}$  and  $\text{CH}_3\text{CHDOH}$ . Opt. 1  
spektr. 18 no.2:344-345 F '65. (MIRA 18:4

L 64495-65

ACCESSION NR: AP5012627

UR/0051/65/018/005/0904/0905  
535.34-14

AUTHORS: Inanov, L. M.; Kadzhar, Ch. O.; Isayev, L. Rzh.

TITLE: Microwave rotational spectrum of the molecules  $CD_3CD_2OD$  and  $CD_3CD_2OH$

SOURCE: Optika i spektroskopiya, v. 18, no. 5, 1965, 904-905

TOPIC TAGS: microwave spectroscopy, deuteron reaction, alcohol, deuterium, optic transition

ABSTRACT: The work reported is a continuation of radiospectroscopic investigations of the ethyl alcohol molecule (Opt. i spektr. v. 14, 300, 1963 and elsewhere). The rotational spectrum of the molecule  $CD_3CD_2OD$  was studied in the frequency range 13--33.5 Gcs at a temperature close to -40C and at pressures 0.1 -- 0.01 mm Hg. A radio-spectrometer with electric molecular modulation, described by the authors earlier (Izv. AN AzerbSSR v. 4, 49, 1959), was used. In the

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L 64495-66

ACCESSION NR: AP5012627

analysis of the spectrum, lines were observed which could be assigned to the  $CD_3CD_2OH$  molecule, which is obviously formed because of the presence of water in the fully deuterized alcohol. To confirm this assumption, the sample was diluted with water, causing the intensity of the lines assigned to  $CD_3CD_2OH$  molecule to increase strongly, while the intensity of the lines of the  $CD_3CD_2OD$  molecule decreased. Simultaneously, some transitions of the HDO and of the water molecules were observed. The observed frequencies of the identified transitions were compared with the computed ones. The intensity of the spectral lines of HDO was appreciably higher than that of  $H_2O$ , although the maximum absorption coefficient was almost two orders of magnitude lower for the two HDO lines than for the  $H_2O$  line. The rotational constants used to calculate the transition frequencies were determined from low- $J$  transitions for which the effect of centrifugal distortion was negligible. Orig. art. has: 2 formulas and 2 tables.

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ACCESSION NR: APO11670

ASSOCIATION: None

SUBMITTED: 22May64

ENCL: 00

SUB CODE: OE, NP

NR REF SOV: 003

OTHER: 002

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Card 3/3

ISAYEV, I.G., vrach

Management of dispensary services for the rural population in  
Karyagino District, Azerbaijan. Azerb.med.zhur. no.8:92-96 Ag 58

(MIRA 11:10)

1. Zaveduyushchiy Karyaginskim rayonnom otdelom zdoroozhraneniya.  
(KARYAGINO DISTRICT--MEDICINE, RURAL)

ISAYEV, I.G.

Use of demographic data in rural public health service. Azerb.med.  
zhur. no.9:45-49 S '59. (MIRA 13:1)  
(KARYAGINO DISTRICT--PUBLIC HEALTH, RURAL)

BASIN, M.A.; YEGOROV, I.T.; ISAYEV, I.I.; KRAMAREV, Ye.A.; SADOVNIKOV, Yu.M.  
(Leningrad)

"Some features of the use of gaseous media to change hydrodynamical characteristics of solids moving in a fluid"

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 January - 5 February 1964

ISAYEV, I.K.

Diagnosis and treatment of gastric phlegmon. Khirurgiia Supplement:42  
'57. (MIRA 11:4)

1. Iz khirurgicheskogo otdeleniya bol'nitsy imeni Il'icha,  
Stalingrad.

(STOMACH--DISEASES) (PHLEGMON)

ISAEV, I. K.

ISAEV, I. K., PRIMA, G. I.

Intracardiac blood transfusion. Vest. khir. 70:3, 1950. p. 12-4

1. Of the Hospital Surgical Clinic (Director—G. S. Toprover)  
and of the Department of Normal Physiology (Head—V. F. Shirokiy).

CML 19, 5, Nov., 1950

ISAYEV, I. K.

Liver - Surgery

Surgery of hepatic cavernous hemangioma. Sov. med. 16 no. 5, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 1952, Unclassified.

2

ISAYEV, I.K.

Resection of the left lobe of the liver for cavernous hemangioma.  
Kirurgiiia no.3:77 Mr '54. (MLHA 7:5)

1. Iz Dmitriyevskoy meshrayonnoy bol'nitsy Kurskoy oblasti  
(glavnyy vrach K.P.Kuznetsov).

(LIVER, neoplasm,

\*hemangioma, cavernous, surg., resection of left lobe)

(ANGIOMA,

\*liver, surg., resection of left lobe)

ISAYEV, I.K.

Postwar children's accidents in Stalingrad; 1943-1954 My-Je '57.

(MIRA 10:9)

1. Iz gospiatal'noy khirurgicheskoy kliniki (sev. - prof. V.S. Yurov) Stalingradskogo meditsinskogo instituta  
(WOUNDS AND INJURIES, in inf. and child  
war wds, statist.)

ISAYEV, I. K., C<sup>md</sup> Med Sci — (miss) "Postwar traumatism in children living in Stalingrad," Stalingrad, 1960, 18 pp (Stalingrad State Medical Institute)  
(KL, 38-60, 110)

SOBOLEV, N.N.; POTAPOV, A.V.; KITAYEVA, V.F.; FAYZULLOV, F.S.; ALYAMOVSKIY,  
V.N.; AMTROPV, Ye. T.; ISAYEV, I.L.

Spectroscopic examination of the state of gas after an impact wave.  
Izv. AN S.S.S.R. Ser. fiz. 22, no. 6:730-736 Je '58. (MIRA 11:7)

1. Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR.  
(Spectrum analysis)  
(Collisions (Nuclear physics))

ИШАЕВ, И. Л.

AUTHORS: Sobolev, B.S., Fetogov, A.V., Kiseyeva, B.F., Fayzullayev, F.B., Qizimovally, V.B., Antropov, Ye.Z. and Isayev, I.L.

TITLE: Spectroscopic Studies of the State of Gas Behind a Shock Wave. I (Spektroskopicheskiye issledovaniya sostoyaniya gaza za udarnoy volnoy. I)

PERIODICAL: Optika i Spektroskopiya, 1969, Vol. 6, No. 3, pp 284-306 (USSR)

ABSTRACT: The paper describes attempts to measure the temperature behind a shock wave using relative intensities of two spectral lines. Shock waves were produced in a shock tube (Fig. 5), 9.8 cm in diameter and 4.5 m long, filled with high-pressure oxygen (100 atm) or nitrogen (10 atm) at pressures up to 10-150 atm. The low-pressure chambers at pressures which were separated by an aluminum diaphragm, burst during the passage of the shock wave in the low-pressure chamber. The spectrum of radiation emitted by the region behind a shock wave was recorded either photographically or photoelectrically using a spectrograph SP-51. In the latter case two photo-

multipliers (PZh-17 or PZh-28, cf. Fig. 6) were used to register two spectral lines. The signals from the photo-multipliers were amplified and circuit in Fig. 7), displayed on an oscillograph OI-17B and photographed. The shock-wave velocity was found by measuring the time which it took the wave to travel between two ionization chambers denoted by A<sub>1</sub> and A<sub>2</sub> in Fig. 8. Experiments were carried out at shock-wave velocities of 2-4 km/sec at which the temperatures behind shock fronts were expected to be 3000-4000°K. At these temperatures neither air nor nitrogen emits atomic lines. The authors consequently introduced small amounts of Li and Fe in the form of LiCl or FeCl<sub>3</sub>. The relative intensities of Li and Fe lines, which were highly scattered (Tables 1) and the scatter varied from one line pair to another, was measured from one experiment to another. This scatter was due to partial re-absorption, as well as to disturbance of the equilibrium state of the gas by the comparatively Card 2/4 large amounts of salts which had to be used. Moreover,

the salts settled on the cold walls of the shock tube and their emission was consequently concentrated near the walls (Fig. 6). To ensure a uniform distribution of the emitting diaphragm behind shock-wave front the authors used gaseous diaphragms in their series of experiments. They detected temperatures from the relative intensities of vibrational bands of oxygen dissociates at these temperatures) using the method described by Brinkman (Ref. 6) and Meit (Ref. 7). Again no reliable values of the temperature behind wave fronts could be obtained (Tables 2, 3) because of the long time necessary to establish equilibrium distribution in vibrational degree of freedom of oxygen dissociates. It is concluded that the method of relative intensities is suitable for determination of temperatures above 5000°K; between 1000 and 5000°K, the self-reversed method (Ref. 6) should be Card 3/4 employed. There are 10 figures, 6 tables and 9

Spectroscopic Studies of the State of Gas Behind a Shock Wave. I  
references, of which 3 are Soviet, 2 English, 1  
translation of English into Russian and 5 Dutch.  
SUBMITTED: April 9, 1969.

ISAYEVA, L.S.; ISAYEV, I.L.

Determining the coefficient of vertical eddy diffusion in the surface layer of the Black Sea by a direct method. Trudy Mor. gidrofiz.inst. AN URSR 28:32-35 '63.

Horizontal eddy diffusions in the sea. 36-39 (MIRA 17:3)

ISAYEVA, L.S.; ISAYEV, I.L.

One of the methods of determining the coefficient of vertical  
turbulent diffusion in the sea. Trudy Mor. gidrofiz. inst. AN  
URSR 30:41-45 '64. (MIRA 17:11)

ACC NR: AT6035083

(M) SOURCE CODE: UR/3095/66/035/000/0003/0012

AUTHORS: Kolesnikov, A. G.; Isayev, I. L.; Isayeva, L. S.; Naumenko, M. F.; Chigrakov, K. I.; Shutov, A. P.

ORG: none

TITLE: The macrostructure of the temperature field on the ocean surface

SOURCE: AN UkrSSR. Morskoy gidrofizicheskiy institut. Trudy, v. 35, 1966. Gidrofizicheskiye i gidrokhimicheskiye issledovaniya tropicheskoy zony Atlantiki (Hydrophysical and hydrochemical research in the tropical zone of the Atlantic), 3-12

TOPIC TAGS: temperature distribution, ocean dynamics, research ship

ABSTRACT: The purpose of this paper is to investigate the temperature field of the ocean surface--the interface between hydrosphere and atmosphere over the ocean. This temperature field is a function of the intensity of vertical heat exchange in both media, the transfer of heat by ocean currents and winds, and also of "boundary" turbulence associated with the specific characteristics of the interface. Data for this study were obtained by making continuous records of the temperature of the surface water during passage of the Russian research ship Mikhail Lomonosov. A thermistor device was used, and the record was made by means of a self-recording EPP-09 potentiometer. Inertial lag in the record amounted to 0.3 sec. Analysis of curves of spectral density (drawn for three oceanic traverses) shows that the

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ACC NR: AT6035083

dependence of the spectral density on wave number follows the "5/3 law" rather well, both for the open ocean and for near-shore zones, but the relation is not smoothly rectilinear. The spectra display a series of maximums, reflecting secondary sources acting at fixed intervals of wave numbers. These are related to dynamics of the water as a result of vortical movements and thermally induced changes (from invading currents, rise of water from depth, cloudiness that causes irregular heating by solar radiation, interaction of atmospheric fronts, etc). The actual spectral density of temperature fluctuations for the open ocean is approximately one order less than for the near-shore parts of the ocean. In the middle-scale region (of wave numbers), a minimum of spectral density occurs, characteristic of a number of meteorological elements such as heat flux, air temperature, wind velocity, and pressure. Orig. art. has: 3 figures and 4 formulas.

SUB CODE: 08/      SUBM DATE: none/      ORIG REF: 004/      OTH REF: 001

Card 2/2

ACC NR: AT6023559

(N)

SOURCE CODE: UR/3095/66/036/000/0103/0107

AUTHOR: Isayev, I. L.; Naumenko, M. F.; Chigrakov, K. I.; Shutov, A. P.

ORG: None

TITLE: Measurement of ocean surface temperature by a ship underway

SOURCE: AN UkrSSR. Morskoy gidrofizicheskiy institut. Trudy, v. 36, 1966. Metody i pribory dlya issledovaniya fizicheskikh protsessov v okeane (Methods and instruments for studying physical processes in the ocean), 103-107TOPIC TAGS: ~~oceanographic equipment~~, oceanographic instrument, oceanographic ship, oceanography, thermistor, thermal analysis, thermometry, temperature instrument, temperature measurement, temperature sensitive element, sea waterABSTRACT: An improved version of a low-inertial apparatus, and methods of measuring ocean surface temperatures under natural conditions, have been worked out in the Maritime Hydrophysical Institute of the Academy of Sciences of the Ukrainian SSR from measurements made regularly aboard Mikhail Lomonosov since 1959. The Karmanov semiconductor thermoresistance systems are used for temperature measurements. However, Soviet-produced glass thermistors (the MT-54, for example) are unreliable at sea, so a special well for the thermal unit was devised. The new apparatus is shown in cross section and a brief description of its structure and characteristics is given. It is accurate to within 0.01°C. The direct current bridge used is described

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ACC NR: AT6023559

and its wiring diagram presented. The use made of the instrument aboard Mikhail Lomonosov is described, and the practical work done at sea has proven that the apparatus and the methods used are reliable and sufficiently sensitive for use in researching the temperature field of the ocean surface, and are so recommended. Orig. art. has: 2 figures.

SUB CODE: 08 /SUBM DATE: None/ORIG REF: 004

Card 2/2

ISAYEV, I.M.

Multilayer plating without cyanide. Mashinostroitel' no. 8:77 Ag  
'64. (MIRA 17:10)

ISAYEV, I. N.

137-1958-2-2209

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 2 (USSR)

AUTHOR: Isayev, I.N.

TITLE: A Technical Conference on Helical Separators (Tekhnicheskoye soveshchaniye po vintovym separatoram)

PERIODICAL: Obogashcheniye rud, 1957, Nr 2, pp 50-51

ABSTRACT: A technical conference was held in Irkutsk in February 1957 for the purpose of discussing research results and of publicizing the experience gained from introducing helical separators in industrial plants.

A. Sh.

1. Separators--Conference--USSR

Card 1/1

Isayev, I. N.

130-9-12/21

**AUTHORS:** Bogatyrev, V.A. and Isayev, I.N.

**TITLE:** Increasing Drawing Speed of a 7.5 ton Mill. (Uvelicheniye skorosti volocheniya stana 7.5 t)

**PERIODICAL:** Metallurg, 1957, Nr 9, p.26 (USSR)

**ABSTRACT:** This is a brief note of improvements effected in a 7.5 ton tube-drawing machine which have enabled the drawing speed to be increased to 45 m/min with tubes having wall-thicknesses of 0.85-1.0 mm. The design and quality of the die have been improved to cope with the higher speeds.

**ASSOCIATION:** Nikopol' South Tube Works (Nikopol'skiy Yuzhnotrubby Zavod)

**AVAILABLE:** Library of Congress.

Card 1/1

ISAYEV, I.N.

Factors having an effect on mineral separation and choice of  
most satisfactory dimensions for concentration table decks.  
Obog. rud 2 no. 6:35-42 '57. (MIRA 11:8)  
(Ore dressing--Equipment and supplies)

ISAYEV, I. N. Cand Tech Sci -- (diss) "Study of the process of separation <sup>the</sup> of mineral granules by specific gravities on concentration <sup>ASD</sup> tables." Len, 1959. 21 pp with drawings (Main Administration of Sci Res and <sup>Planning</sup> ~~Project~~ Organizations under ~~the~~ Gosplan USSR. All-Union Sci Res and <sup>Planning</sup> ~~Project~~ Inst of Mechanical Treatment of Minerals "Mekhanobr"), 200 copies (KL, 43-59, 124)

ISAYEV, I.N.

Parameters and efficiency of concentration tables. Obog. rud 4  
no.1:18-25 '59. (MIRA 14:8)  
(Ore dressing--Equipment and supplies)

ISAYEV, I.N.

Distribution of mineral grains on the deck of concentration  
tables. Obog. rud 4 no.2:13-17 '59. (MIRA 14:8)  
(Ore dressing)

ISAYEV, I.N.

Nomogram for the determination of concentration table  
efficiency. Obog. rud 4 no.6:35-37 '59. (MIRA 14:8)  
(Ore dressing--Equipment and supplies)

ISAYEV, Ivan Nikolayevich; KUNIK, V.P., otv. red.; LOMILINA, L.N.,  
tekhn. red.; SHKLYAR, S.Ya., tekhn. red.

[Concentrating tables]Kontsentratsionnye stoly. Moskva, Gos-  
torgizdat, 1962. 100 p. (MIRA 15:10)  
(Ore dressing--Equipment and supplies)

ISAYEV, I. N., kand. tekhn. nauk

"Processing mineral placer deposits" by K. V. Solomin. Reviewed  
by I. N. Isaev. Gor. zhur. no.10:78-79 O '62. (MIRA 15:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut  
mekhanicheskoy obrabotki polesnykh iskopayemykh, Leningrad.

(Hydraulic mining)  
(Solomin, K. V.)

ISAYEV, I. M.

Parameters and output of spiral classifiers. Obog. rud. 7  
no.6:25-28 '62. (MIRA 16:4)

(Ore dressing--Equipment and supplies)

L 16094-66 EWT(d)/EWT(m)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(l) JD/HW/DJ

ACC NR: AT5022782

SOURCE CODE: UR/3164/64/000/014/0040/0043

AUTHOR: Chuyko, P. I. (Engr.); Savin, G. A. (Engr.); Kolesnikov, V. N. (Engr.); Putyatina, Z. V. (Engr.); Isayev, I. N. (Engr.)

ORG: none.

TITLE: Production of size 40 x 2.0 and 40 x 1.5 mm pipes from stainless steel by cold drawing with a long mandrel

SOURCE: Dnepropetrovsk. Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorsko-tekhnologicheskyy institut trubnoy promyshlennosti. Proizvodstvo trub, no. 14, 1964. Sbornik statey po teorii i praktike trubnogo proizvodstva (Collection of articles on the theory and practice of pipe production), 40-43

TOPIC TAGS: metal tube, cold working, metal drawing, stainless steel, lubrication

ABSTRACT: The experiments were conducted using a 30 t long-drawing tube-mill, equipped with a rolling mill with slanting rollers. Copper and oxalates were tested as lubricants for coating. Following the coppering and oxalating, the pipes were lubricated at temperatures of 50°C with a 6% solution of hard soap, and the outside surface was covered with castor oil and talc (proportion 8:2). The  
Card 1/2

L 16094-66

ACC NR: AT5022782

44,5516 4  
experiments confirmed the possibility of obtaining stainless steel thin-walled pipes by cold drawing with a long mandrel and with a subsequent calibration by drawing without a mandrel. They also showed the possibility of producing pipes without an intermediate heat treatment. Orig. art. has: 1 figure and 1 table.

SUB CODE: 11/13 SUBM DATE: none/ ORIG REF: 003

Card 2/2 SYK

ISAYEV, I. T.

Cand Tech Sci

Dissertation: "Fundamental of Dynamic Calculating  
the Main Girder of Railroad Car for Longitudinal Impact."

22/3/50

Moscow Order of the Labor Red Banner Electromechanical Inst  
of Railroad Engineers imeni F. E. Dzerzhinskiy.

**SO Vecheryaya Moskva**  
**Sum 71**

ISAYEV, I.P., kandidat tekhnicheskikh nauk.

Principles for calculating dynamic stresses in the ridge beam of  
railroad cars subjected to longitudinal impact. Trudy MEMIIT no.62:  
190-224 '53. (MLRA 7:12)  
(Railroads--Cars) (Strains and stresses)

Isayev, I. P.

AID P - 4098

Subject : USSR/Electricity

Card 1/2 Pub. 27 - 9/24

Author : Isayev, I. P., Kand. Tech. Sci., Dotsent, Moscow

Title : Influence of tolerances upon the stability of characteristics of traction motors and electric locomotives.

Periodical : Elektrichestvo, 11, 55-60, N 1955

Abstract : The author submits a general method of determining and evaluating factory tolerances. The method is based on mathematical statistics and confirmed by a study of data received in factory tests of traction motors and rating tests of electric locomotives of the VL-22M type. This method permits, in particular, solving two practical important tasks: a) with a given divergence between the nominal characteristic of traction motors and that obtained in factory tests, to determine possible tolerances and b) with adopted factory tolerances, to determine the

ISAYEV, I.P.

Investigation of deviations in characteristics of electric locomotives by mathematical statistics methods. Trudy MIIT no.82/83: 200-230 '55. (MLRA 9:8)  
(Electric locomotives) (Mathematical statistics)

ISAYEV, Igor' Petrovich, kandidat tekhnicheskikh nauk; SIDOROV, N.I.,  
inzhener, redaktor; KHITROV, P.A., tekhnicheskiy redaktor

[Stability of the performances of electric locomotives] Stabil'nost'  
kharakteristik elektricheskikh lokomotivov. Moskva, Gos. transp.  
shel-dor. izd-vo, 1956. 117 p. (MLRA 9:10)  
(Electric locomotives)

BENESHEVICH, I.I., kandidat tekhnicheskikh nauk; BOGIN, N.M., kandidat tekhnicheskikh nauk; BYKOV, Ye.I., inzhener; VLASOV, I.I., kandidat tekhnicheskikh nauk; GRITSEVSKIY, M.Ye., inzhener; GRUBER, L.O., inzhener; GURVICH, V.G., inzhener; DAVYDOV, V.N., inzhener; YER-SHOV, I.M., kandidat tekhnicheskikh nauk; ZASORIN, S.N., kandidat tekhnicheskikh nauk; IVANOV, I.I., kandidat tekhnicheskikh nauk; KRAUKLIS, A.A., inzhener; KROTOV, L.B., inzhener; LAPIN, V.B., inzhener; LASTOVSKIY, V.P., dotsent; LATUNIN, N.I., inzhener; MARKVARDT, K.G., professor, doktor tekhnicheskikh nauk; MAKHAYLOV, M.I., professor, doktor tekhnicheskikh nauk; NIKANOROV, V.A., inzhener; OSKOLKOV, K.N., inzhener; OKHOSHIN, I.I., inzhener; PARFENOV, K.A., dotsent; kandidat tekhnicheskikh nauk; PERTSOVSKIY, L.M., inzhener; POPOV, I.P., inzhener; PORSHNEV, B.G., inzhener; RATNER, M.P., inzhener; ROSSIYEVSKIY, G.I., dotsent, kandidat tekhnicheskikh nauk; RYKOV, I.I., kandidat tekhnicheskikh nauk; RYSHKOVSKIY, I.Ya., dotsent, kandidat tekhnicheskikh nauk; RYABKOV, A.Ya., professor [deceased]; TAGER, S.A., kandidat tekhnicheskikh nauk; KHAZEN, M.M., professor, doktor tekhnicheskikh nauk; CHERNYSHEV, M.A., doktor tekhnicheskikh nauk; MBIN, L.Ye., professor, doktor tekhnicheskikh nauk; YURENEV, B.N., dotsent; AKSENOV, I.Ya., dotsent, kandidat tekhnicheskikh nauk; ARKHANGEL'SKIY, A.S., inzhener; BARTNEV, P.V., professor, doktor tekhnicheskikh nauk; BHEMGARD, K.A., kandidat tekhnicheskikh nauk; BOROVOY, N.Ye., dotsent, kandidat tekhnicheskikh nauk; BOGDANOV, I.A., inzhener; BOGDANOV, N.K., kandidat tekhnicheskikh nauk; VINNICHENKO, N.G., dotsent, kandidat ekonomicheskikh nauk;

(Continued on next card)

EGNESHEVICH, I.I.----(continued) Card 2.

VASIL'YEV, V.F.; GONCHAROV, N.G., inzhener; DMRIBAS, A.T., inzhener;  
DOBROSLE'SKIY, K.M., dotsent, kandidat tekhnicheskikh nauk; DLUGACH,  
B.A., kandidat tekhnicheskikh nauk; YEFIMOV, G.P., kandidat tekhnicheskikh nauk;  
ZEMBLINOV, S.V., professor, doktor tekhnicheskikh nauk; ZABELLO, M.L., kandidat tekhnicheskikh nauk; IL'IN, K.P., kandidat tekhnicheskikh nauk; KARAFNIKOV, A.D., kandidat tekhnicheskikh nauk; KAPLUN, F.Sh., inzhener; KANSHIN, M.D.; KOCHNEV, F.F., professor, doktor tekhnicheskikh nauk; KOGAN, L.A., kandidat tekhnicheskikh nauk; KUCHURIN, S.F., inzhener; LEVASHOV, A.D., inzhener; MAKSIMOVICH, B.M., dotsent, kandidat tekhnicheskikh nauk; MARTYNOV, M.S., inzhener; MEDEL', O.M., inzhener; NIKITIN, V.D., professor, kandidat tekhnicheskikh nauk; PADNYA, V.A., inzhener; PANTELIN, P.I., kandidat tekhnicheskikh nauk; PETROV, A.P., professor, doktor tekhnicheskikh nauk; POVOZHENKO, V.V., professor, doktor tekhnicheskikh nauk; PISKAREV, I.I., dotsent, kandidat tekhnicheskikh nauk; SERGEEV, Ye.S., kandidat tekhnicheskikh nauk; SIMONOV, K.S., kandidat tekhnicheskikh nauk; SIMANOVSKIY, M.A., inzhener; SUYAZOV, I.G., inzhener; TALDAYEV, F.Ye., inzhener; TIKHONOV, K.K., kandidat tekhnicheskikh nauk; USHAKOV, N.Ye., inzhener; USPENSKIY, V.K., inzhener; FEL'DMAN, B.D., kandidat tekhnicheskikh nauk; VERAPONTOV, G.V., inzhener; KHOKHLOV, L.P., inzhener; CHERNOMORDIK, G.I., professor, doktor tekhnicheskikh nauk; SHAMAYEV, M.F., inzhener; SHAFIRKIN, B.I., inzhener; YAKUSHIN, S.I., inzhener; ORANOVSKIY, P.G., redaktor; TISHCHENKO, A.I., redaktor; ISAYEV, I.P., dotsent, kandidat tekhnicheskikh nauk, redaktor; KLIMOV, V.F., dotsent kandidat tekhnicheskikh nauk  
(Continued on next card)

BENESHEVICH, I.I.--- (continued) Card 3.

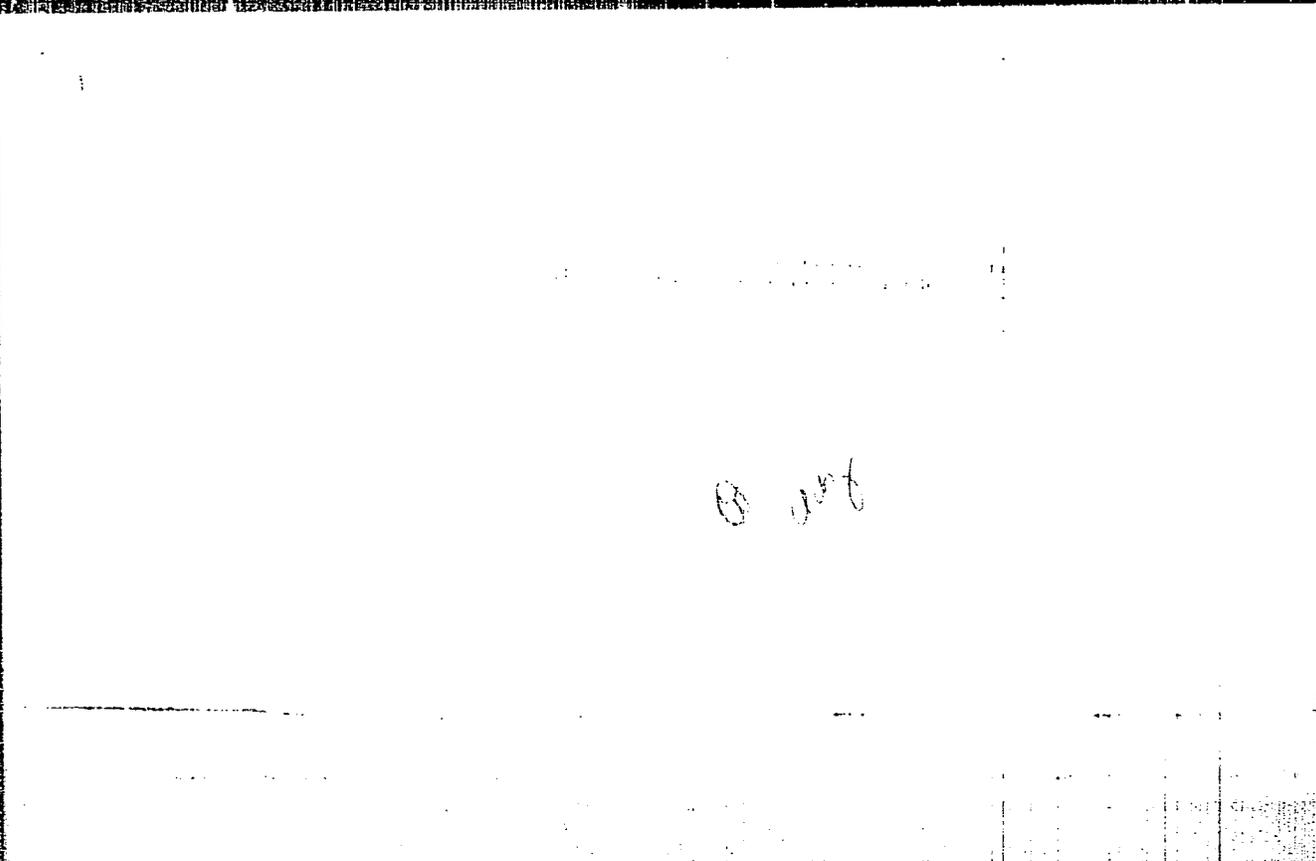
nauk, redaktor; MARKOV, M.V., inzhener, redaktor; KALININ, V.K., inzhener, redaktor; STEPANOV, V.N., professor, redaktor; SIDOROV, N.I., inzhener, redaktor; GERONIMUS, B.Ye., kandidat tekhnicheskikh nauk, redaktor; ROBL', R.I., otvetstvennyy redaktor

[Technical reference manual for railroad engineers] Tekhnicheskii spravochnik zheleznodorozhnika. Moskva, Gos. transp.shel-dor. izd-vo. Vol.10. [Electric power supply for railroads] Energosnabzhenie zheleznykh dorog. Otv.red. toma K.G.Markvardt. 1956. 1080 p. Vol.13. [Operation of railroads] Ekspluatatsiia zheleznykh dorog. Otv. red. toma R.I.Robel'. 1956. 739 p. (MLRA 10:2)

1. Chlen-korrespondent Akademii nauk SSSR (for Petrov)  
(Electric railroads) (Railroads--Management)

ISAYEV, I. P. Doc/ Tech Sci -- (diss) "Stability of characteristics  
of electric locomotives." Mos, 1957. 21 pp 20 cm. (Min<sup>f</sup> Railways USSR.  
Mos Order of Lenin and Order of Labor Red Banner Inst of Engineers  
of Railroad Transportation im. I.V. Stalin). 110 copies.  
(KL, 23-57, 111)

~~47~~  
47



ISAYEV, I.P.,  
 ZAKHARCHENKO, D.D., dotsent, kandidat tekhnicheskikh nauk; ISAYEV, I.P.,  
 dotsent, kandidat tekhnicheskikh nauk; KALININ, V.K., inzhener;  
 KREST'YANOV, M.Ye., dotsent, kandidat tekhnicheskikh nauk;  
 LAKSHTOVSKIY, I.A., dotsent, kandidat tekhnicheskikh nauk;  
 MARKVARDT, K.G., professor, doktor tekhnicheskikh nauk; MEDEL', V.B.,  
 professor, doktor tekhnicheskikh nauk; MIRONOV, K.A., inzhener;  
 MIKHAYLOV, N.M., dotsent, kandidat tekhnicheskikh nauk; MAKHODKIN, M.D.,  
 dotsent, kandidat tekhnicheskikh nauk; OZEMBLOVSKIY, Ch.S.,  
 inzhener; OSIPOV, S.I., inzhener; ROMASHKOV, S.G., inzhener; SOKOLOV,  
 L.S., inzhener; FAMINSKIY, G.V., kandidat tekhnicheskikh nauk;  
 SHATSILLO, A.A., inzhener; SHLYAKHTO, P.N., dotsent, kandidat  
 tekhnicheskikh nauk; BOVE, Ye.G., kandidat tekhnicheskikh nauk, retsentsent;  
 PERTSOVSKIY, L.M., inzhener, retsentsent; ALKSNYEV, A.Ye., professor,  
 doktor tekhnicheskikh nauk, retsentsent; BATALOV, N.M., inzhener,  
 retsentsent; VINBERG, B.M., inzhener, retsentsent; GRACHEVA, L.O.,  
 kandidat tekhnicheskikh nauk, retsentsent; YEVDOKIMOV, A.M.,  
 inzhener, retsentsent; KALININ, S.S., inzhener, retsentsent;  
 TRAKHTMAN, L.M., kandidat tekhnicheskikh nauk, retsentsent;  
 PYLENKOV, A.P., inzhener, retsentsent; GOKHSHTIN, B.Ye., kandidat  
 tekhnicheskikh nauk, retsentsent; IL'IN, I.P., inzhener, retsentsent;  
 MAKHODKIN, M.D., dotsent, kandidat tekhnicheskikh nauk, retsentsent;  
 TISHCHENKO, A.I., otvetstvennyy redaktor; BERNISHEVICH, I.I.,  
 kandidat tekhnicheskikh nauk, redaktor; ZOROKHOVICH, A.Ye., dotsent  
 kandidat tekhnicheskikh nauk, redaktor; LUTSENKO, Ye.G., inzhener,  
 redaktor; BOGOZHIN, A.P., inzhener, redaktor; SIDOROV, N.I.,  
 inzhener, redaktor; VERINA, G.P., tekhnicheskiy redaktor  
 (Continued on next card)

ZAKHARCHENKO, D.D.---(continued) Card 2.

[Technical manual for railroad workers] Tekhnicheskii  
spravochnik zheleznodorozhnika. Red. kollegiia R.G. Granovskii  
i dr. Moskva, Gos. transp. zhel-dor. izd-vo. Vol. 9. [Electric  
railroad rolling stock] Elektropodvizhnoi sostav zheleznykh  
dorog. Otv. red. toma A.I. Tishchenko. 1957. 652 p. (MLRA 10:4)

1. Chlen-korrespondent Akademii nauk SSSR. (for Alekseyev)  
(Electric railroads--Rolling stock)

*ISAYEV, I.P.*  
ISAYEV, I.P., dots., kand. tekhn. nauk.

Principles of orthogonal tolerance systems for locomotive spring  
suspensions. Trudy MIIT no.96:5-30 '57. (MIRA 11:1)  
(Car axles)

*ISAYEV, I.P.*  
ISAYEV, I.P., dots., kand. tekhn. nauk.

~~Effect~~ Effect of the characteristics of the returning mechanism of car  
trucks on the smoothness of movement in straight sections of track.  
Trudy MIIT no.96:31-40 '57. (MIRA 11:1)  
(Car axles)

ISAYEV, Igor' Petrovich; SIDOROV, N.I., inzh., red.; BOBROVA, Ye.N.,  
tekhn.red.

[Permissible variations in the specifications of electric  
locomotives] Dopuski na kharakteristiki elektricheskikh loko-  
motivov. Moskva, Gos.transp.shel-dor.isd-vo, 1958. 369 p.  
(MIRA 13:1)

(Electric locomotives)

ISAYEV, Igor' Petrovich -- awarded sci degree of Doc Tech Sci for  
19 Jun 57 defense of dissertation: "Stability of the characteristic  
[kharakteristika] of electric locomotives" at the Council, Mos Inst  
of RR Transp Engrs imeni Stalin; Prot No 3, 1 Feb 58.  
(BMVO, 6-58, 17)

ISAYEV, Igor' Petrovich,; SIDOROV, N.I., inzh., red.; BOBKOVA, Ye.N., tekhn. red.

[Allowable variation of electric locomotive performance characteristics]  
Dopuski na kharakteristiki elektricheskikh lokomotivov. Moskva, Gos.  
transp. shel-dor. izd-vo, 1958. 368 p. (MIRA 11:12)  
(Electric locomotives--Testing)

ISAYEV, I.P., doktor tekhn. nauk.

Graphoanalytic method of determining maximum conditional mechanical  
stability of retarding torque in railway meters during regeneration.  
Trudy MIIT no.103:39-43 '58. (MIRA 11:12)  
(Electric railway meters) (Torque)

8 (6), 12 (3)

AUTHORS:

Isayev, I. P., Doctor of Technical Sciences,  
SOV/105-59-6-12/28  
Gorchakov, Ye. V., Candidate of Technical Sciences; Moscow

TITLE:

On Instabilities in the Temperature Rise in Electric Locomotive Traction Motors (O nestabil'nosti temperatury nagreva tyagovykh dvigateley elektrovozov)

PERIODICAL:

Elektrichestvo, 1959, Nr 6, pp 54-59 (USSR)

ABSTRACT:

In order to evaluate the tractive properties of electric locomotives it is not sufficient to know the causes for the unequal heating of traction motors, a knowledge of the influence of each of these causes is also necessary. If this problem is to be solved it is expedient to use the method presented herein. It is based upon the principle of probability and upon the theory of mathematical statistics (Refs 1, 2, 3, 4, 5, 6). The nature of the method is exposed. This is a presentation of the results of the investigations of the traction motors DPE-400A and NB-406A. The results obtained either by theoretical deductions according to the method in question or by experiments show that the unequal heating of the traction motors of electric locomotives is

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On Instabilities in the Temperature Rise in  
Electric Locomotive Traction Motors

SOV/105-59-6-12/28

caused mainly by three circumstances: a divergence of the speed characteristics, of the thermal behavior owing to technological tolerances in production, and the differences in the wheel diameters of the locomotives. A comparison of these three main causes showed that the greatest influence is exerted by the first cause. This investigation led to the following recommendations: 1) Measures must be taken in the production of motors for stabilizing the iron losses. 2) It is considered necessary to test the speed characteristic at least in two points, not only in one, at rated load and at a load greater than the rated load, which must be determined according to the operational conditions for the electric locomotive. This measure is caused by the necessity of having a minimum of divergence even in the range of great loads. 3) It is considered expedient to standardize the rated values and the deviation of the thermal data (the stabilized rated excess temperature  $\tau_{\infty}$  of the motor winding and the rated time constant  $T$  of the winding). 4) During the mounting of the motors the armatures and the frame must be chosen in

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On Instabilities in the Temperature Rise in  
Electric Locomotive Traction Motors

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such a way as to minimize the difference in the speed characteristics to a limit of  $\pm 1 - 2\%$ . The calculations showed that by careful selection of armature and frame of motors DPE-400A the prime cost of the electric locomotive rises by 18000 to 24000 roubles, whereas the cost saving during operation amounts to hundred thousands of roubles.

5) The diameters of wheel sets in operational practice are to be chosen so as to ensure that the relative deviation of the diameter of a wheel set is equal and of opposite sign to the relative deviation of the speed of the traction motor of the same wheel. There are 5 figures, 5 tables, and 6 references, 4 of which are Soviet.

SUBMITTED: February 21, 1959

Card 3/3

8(6)

SOV/105-59-7-30/30

**AUTHORS:**

Medel', V. B., Doctor of Technical Sciences, Professor  
Isayev, I. P., Doctor of Technical Sciences

**TITLE:**

V. Ye. Rozenfel'd, Ye. V. Chebotarev, N. N. Sidorov and N. A. Boldov. Fundamentals of Electric Traction. Part 1, 311 Pages, Price 14 Rubles, 65 Kop., Published by Gosenergoizdat, 1957 (V. Ye. Rozenfel'd, Ye. V. Chebotarev, N. N. Sidorov i N. A. Boldov. Osnovy elektricheskoy tyagi, ch. 1, 311 str., ts. 14 rub. 65 kop., Gosenergoizdat, 1957)

**PERIODICAL:**

Elektrichestvo, 1959, Nr 7, pp 95 - 96 (USSR)

**ABSTRACT:**

This is a review of a text book for Students of the Polytechnic Colleges and Colleges of Power Engineering. It has 12 chapters and is written in a clear and consistent style. Individual chapters are discussed and the shortcomings are pointed out. The chapters deal with the following subjects: The equations of motion of a train, the realization of tractional forces and the braking of a train, the frictional resistance, the traction forces, the braking characteristics; the features of the traction- and braking characteristics of alternating current systems; electric trains driven by combustion engines; calculation of traction; analytical and graphical methods for

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V. Ye. Rozenfel'd, Ye. V. Chebotarev, N. N. Sidorov and N. A. Baldov. Fundamentals of Electric Traction. Part 1, 311 Pages, Price 14 Rubles 65 Kope., Published by Gosenergoizdat, 1957

the determination of power consumption and methods of reducing it; methods of testing the combustion of tractive motors; the fundamentals for the selection of a rational operation of trains, the most favorable characteristics of tractive motors, of the frictional weight of an electric locomotive, and of the weight of the train; testing the rolling stock and carrying out of measurements.

ASSOCIATION: Moskovskiy institut inzhenerov zheleznodorozhnogo transporta (Moscow Institute of Railroad Engineers)

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USCOM-DC-61,260

ISAYEV, I.P., doktor tekhn.nauk, prof.

Dynamic sturdiness tests of a motor bogie. Trudy MIIT no. 121:89-97  
'60. (MIRA 14:4)

(Railroad motorcars—Testing)

ISAYEV, I.P., doktor tekhn.nauk, prof.

Stress conditions in the mounts of traction motors. Trudy MIIT  
no. 121:220-224 '60. (MIRA 14:4)  
(Electric railway motors--Testing)

ISAYEV, I.P., doktor tekhn.nauk, prof.; MOLODIKOV, V.A., inzh.

Modernization of the suspension system of the N8 electric locomotive.  
Elek.i tepl.tiaga 5 no.4:16-17 Ap '61. (MIRA 14:6)  
(Electric locomotives)

MEDEL', V.B., prof., doktor tekhn.nauk; ROZENFEL'D, V.Ye., prof., doktor tekhn.nauk; ISAYEV, I.P., prof., doktor tekhn.nauk

Textbook on the rolling stock of electric railroads ("Rolling stock of electric railroads" by B.M.Tikhmenev, L.M.Trakhtman. Reviewed by V.B.Medel', V.E.Rozenfel'd, I.P.Isaev). Zhel.dor. transp. 43 no.5:95-96 My '61. (MIRA 14:4)

(Electric railroads—Rolling stock)  
(Tikhmenev, B.M.) (Trakhtman, L.M.)

ISAYEV, Igor' Petrovich; MOLODIKOV, Vasilii Aleksandrovich; BIRYUKOV,  
Ivan Vyacheslavovich; LAZARYAN, V.A., doktor tekhn. nauk,  
retsensent; PEROVA, A.A., kand. tekhn. nauk, red.;  
VOROB'YEVA, L.V., tekhn. red.

[Fundamentals of programming and solving of traction and  
dynamics problems of the rolling stock of electric railroads  
by means of electronic computers] Osnovy programmirovaniia i  
reshenie zadach tiagi i dinamiki elektropodvizhnogo sostava  
na elektromykh vychislitel'nykh mashinakh. Moskva, Trans-  
zheldorizdat, 1962. 185 p. (MIRA 15:10)  
(Electric railroads--Management) (Electronic computers)

ROZENFEL'D, Vitaliy Yevgen'yevich; ISAYEV, Igor' Petrovich; SIDOROV,  
Nikolay Nikolayevich; DYAD'KOV, A.M., kand. tekhn. nauk,  
retsenzent; KALININ, V.K., kand. tekhn. nauk, red.; BOBROVA,  
Ye.N., tekhn. red.

[Electric traction]Elektricheskaya tiaga. Moskva, Transzheldoriz-  
dat, 1962. 346 p. (MIRA 16:1)  
(Electric railway motors)

LAZARYAN, Vsevolod Arutyunovich; ISAYEV, I.P., doktor tekhn.nauk,  
retsenzent; PEROVA, A.A., kand. tekhn. nauk, red.; BOBROVA,  
Ye.N., tekhn. red.

[Use of mathematical machines with continuous action in solving  
problems of the dynamics of railroad rolling stock]Primenenie ma-  
tematicheskikh mashin nepreryvnogo deistviia k resheniiu zadach  
dinamiki podvizhnogo sostava zheleznykh dorog. Moskva, Trans-  
zheldorizdat, 1963. 217 p. (MIRA 16:2)

(Electronic analog computers)  
(Railroad engineering)

ISAYEV, I.P., doktor tekhn.nauk, prof.

Effect of the operation of electric rolling stock on the coupling factor.  
Elektrichestvo no.7:12-19 J1 '63. (MIRA 16:9)

1. Moskovskiy institut inzhenerov zheleznodorozhnogo transporta.  
(Electric railroads)  
(Electric locomotives)

ISAYEV, I.P., prof., doktor tekhn.nauk

Important potential for an efficient utilization of locomotives.  
Zhel.dor.transp. 45 no.8:36-40 Ag '63. (MIRA 16:9)  
(Locomotives) (Railroads--Management)

ISAYEV, I.P., prof., doktor tekhn. nauk

Application of mathematical statistics and theory of probabilities  
in electric traction problems and in the design and construction  
of electric locomotives. Trudy MIIT no.207:4-14 '65.  
(MIRA 19:1)

L 41808-65

ACCESSION NR: AF5012668

UR/0105/64/000/012/0006/0012

AUTHOR: Isayev, I. P. (Doctor of technical sciences, Professor); <sup>10</sup>Brunshteyn, ~~D. P. (Engineer)~~ <sub>B</sub>

TITLE: Method of analyzing the instabilities of semiconductor power diode characteristics

SOURCE: Elektrichestvo, no. 12, 1964, 6-12

TOPIC TAGS: semiconductor diode, semiconductor rectifier, electric transmission equipment, electric property, electric power engineering, electric power production

ABSTRACT: Volt-ampere characteristics of individual semiconductor rectifiers differ markedly, and reverse currents can differ by a factor of several thousand. Mean characteristics are therefore unreliable and desired operation is usually achieved through circuit redundancy. An analysis method is developed and applied to bridge-connected silicon diodes of a power rectifier rated at 200 amp and 300 to 800 volts. Results show that the scatter of volt-ampere characteristics of diodes can be found with any desired degree of exactness and the factor principally responsible for the deviation can be identified. The mean magnitude and dispersion of the voltage drop and reverse current are most suitably calculated statistically as a sum of random and nonrandom components.

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Voltage drops follow a Gaussian distribution, whereas the reverse current follows the law of real positive numbers. The laws of composition of random variables is suitable for clarifying the reasons for the deviation of the characteristics from the indicated distributions. Results of the studies confirm that the probable characteristics of various semiconductor devices can be calculated in advance. Pertinent mathematical relations are derived.

Orig. art. has: 20 formulas and 6 graphs.

ASSOCIATION: Moskovskiy institut inzhenerov zheleznodorozhnogo transporta  
(Moscow Institut of Railroad Transport Engineers)

SUBMITTED: 00

ENCL: 00

SUB CODE: EE, EC

NO REF SOV: 004

OTHER: 000

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